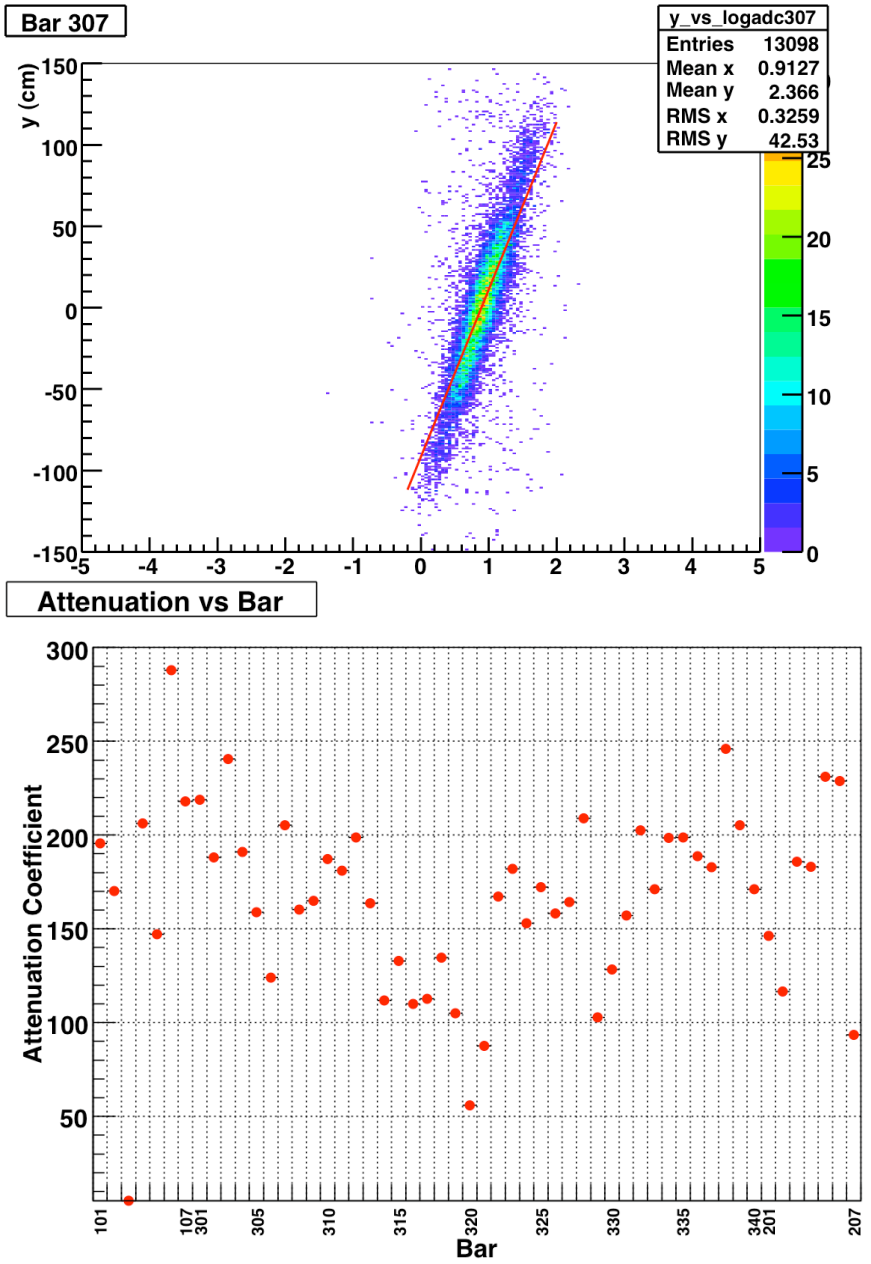
Calorimeter DB & DST

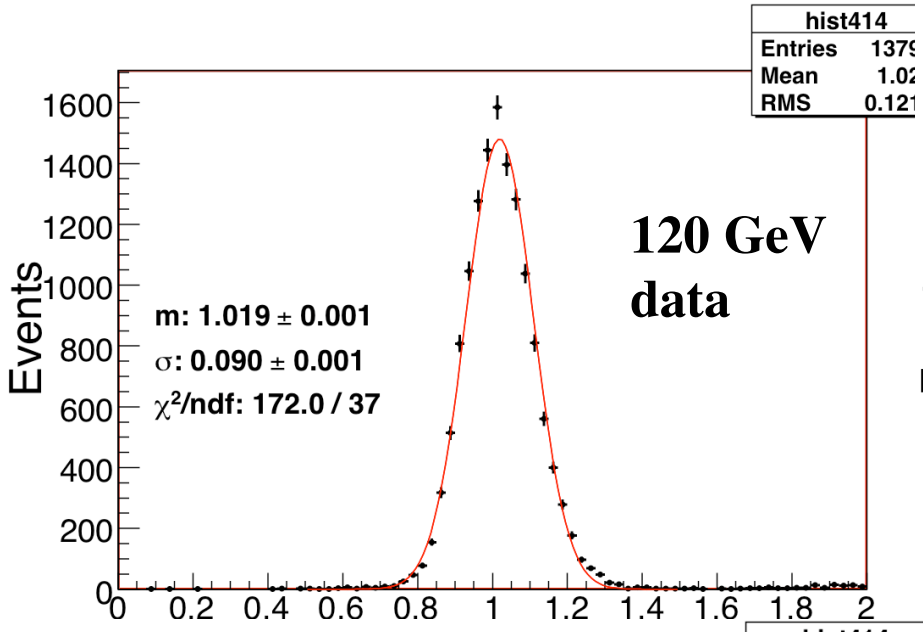
- New DB table calocalib in Calib DB
- Loaded with EMCal and HCal energy calibration constants to convert ADC to GeV
  - No run-dependency or momentum-dependency for now
- Also contains HCal ADC scale factors [to balance HCal ADCs]
- Interface to DB provided by CaloCalib (in EMCalReco)
- In DST added variables for calibrated energies
  - Calibrated energy for HCal
    - This is event-by-event only -- correlating HCal energy with track/showers needs to be done in analysis stage
  - Calibrated energy for EMCal Showers (x&y views)
    - x&y showers are stored as-is: not correlated
- Trk ID is set for showers that match with a track

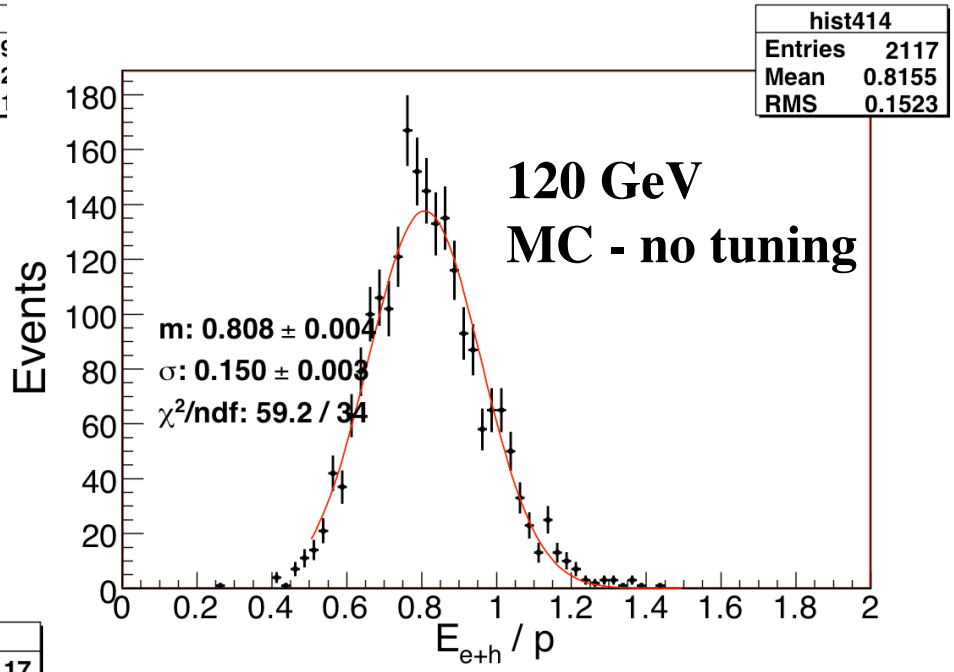
ToF DB

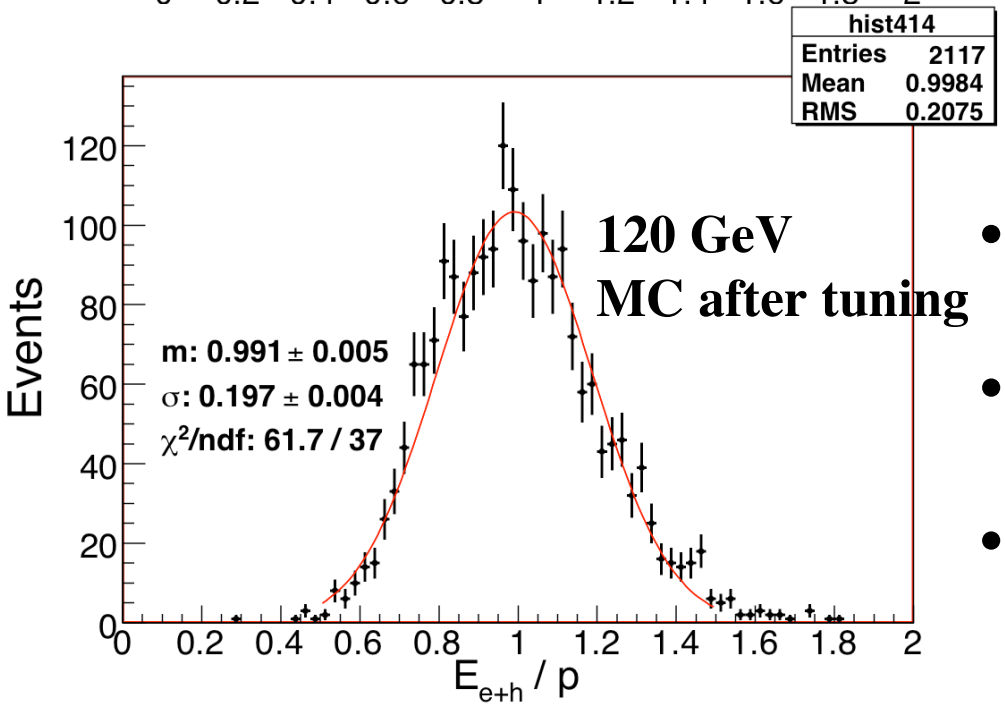
- New TofBarAtt table for TOF Bar attenuation constants
- Loaded with attenuation constants from NuMI runs
- Interface to DB via TOFBarAtt (in TOFUtils)
- Could probably to tune attenuation constants further ‘by hand’ - to minimize distortions to the fit especially for central bars



Calorimeter Data/MC Comparison

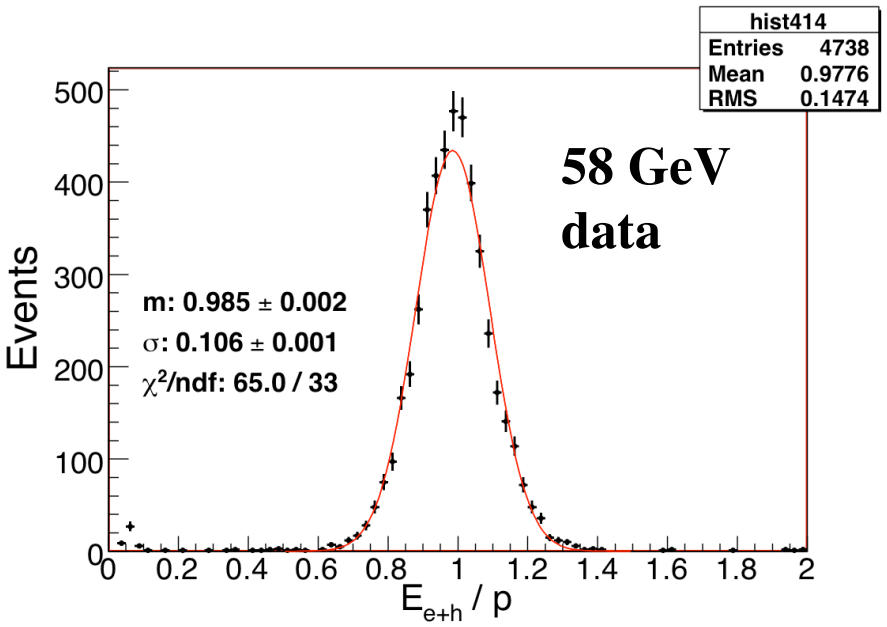


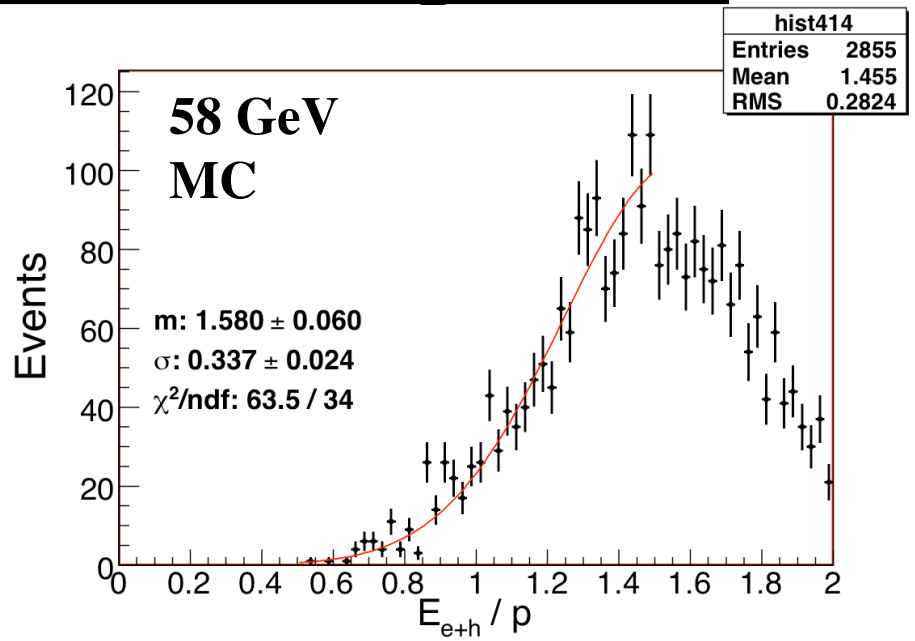




- Run 15860
- "Gain" in MC ~20% too low
- MC ~2x wider than data

Calorimeter Data/MC Comparison





- MC Gain ~50% too high and ~2x wider -- inconsistent with 120 GeV
- Seems to be a problem with the stored calorimeter hits: hits are stored twice - for most events, *not all*
- Appears to be due to changes made after July 2007